"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, A. V., and RUDITSKIY, M. G., (Prof.) -- Kursk

"The Importance of Angiography for Diagnosing Bony Tumors."

Report submitted for the 27th Congress of Surgeons of the USSR, Moscow, 23-28 May 1960.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Boris Alekseyevich; EYDEL'MAN, B.I., red.; PONOMAREVA, A.A., tekh. red.

[Development of industry and the creation of the material and technical base of communism] Razvitie promyshlennosti i sozdanie material'no-tekhnicheskoi bazy kommunizma. Moskva, Ekonomizdat, 1963. 81 p. (MIRA 16:9)
(Russia--Economic policy) (Technology)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

SIMAKIN, A.M.; BARABANOV, V.Ye.; BORISOV, A.M.; AFONITOSHIN, V.N.; GRIBKOV, V.M.; CHUDESOV, I.D.; VOLCHKOV, B.A.; KUZNETSOVA, N.Ya., red.

[Technology of the maintenance of ZIL-150, ZIL-164 and ZIL-585 motor vehicles in agriculture] Tekhnologiia tekhnicheskogo obsluzhivaniia avtomobilei ZIL-150, ZIL-164 i ZIL-585 v sel'skom khoziaistve. Moskva, 1963. 78 p. (MIRA 17:9)

1. Perovo. Gosudarstvennyy Vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka. 2. Laboratoriya tekhnologii remonta i tekhnicheskogo obsluzhivaniya avtomobiley i reziny Gosudarstvennogo soyuznogo nauchno-issledovatel'skogo tekhnologicheskogo instituta.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, B.P. (Moskva)

Successful treatment of embolism of the popliteal artery with heparin. Klin.med. 37 no.8:140-141 Ag '59. (MIRA 12:11)

1. Iz Glavnogo voyennogo gospitalya im. akad. N.N.Burdenko.
(POPLITEAL ARTERY, diseases)
(EMBOLISM, therapy)
(HEPARIN, therapy)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

SHUL'TSEV, G.P.; VOLCHKOV, B.P.

Clinical aspects of an atherosclerotic aneurysm of the thoracic aorta. Klin.med. 38 no.6:121-126 Je '60. (MIRA 13:12)
(AORTIC ANEURYSM) (ARTERIOSCLEROSIS)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, B.P.

Precomatose state in a patient with thyrotoxicosis. Klin.med. 38 no.7:145-146 '60. (MIRA 13:12)
(HYPERTHYRODISM)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

SOV/177-58-5-7/30

17(13)

AUTHOR: Volchkov, B.P., Colonel of the Medical Corps

TITLE: Application of Reserpine (Serpasil) to Patients Suffering From Hypertonia (Primeneniye reserpina bol'nym gipertonicheskoy bolezn'yu)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 5, pp 35 - 38 (USSR)

ABSTRACT: The author worked out 105 case histories of patients suffering from hypertonia in the second and third stage, who were treated with reserpine without using other hypotensive means. Based on these results, the author concluded that: 1) the reserpine treatment of patients suffering from second and third stage hypertonia has a considerable hypotensive effect. Reserpine can be used in combination with other hypotensive means; 2) a combined treatment with reserpine and other hypotensive preparations is expedient in case the reserpine administered to the patient remains ineffective in the course of three

Card 1/2

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Application of Reserpine (Serpasil) to Patients Suffering From Hypertonia

weeks; 3) treatment with reserpine is to be started with small doses which can be increased gradually in case of insufficient hypotensive results; 4) myocardial infarction and cerebral insultus in the patient's anamnesis are no indication that reserpine should not be applied. There are 2 tables.

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 52160-65 EWP(m)/EWT(1)/FCS(k)/EWA(d)/EWA(1) Pd-1

ACCESSION NR: AP5013370 UR/0207/65/000/002/0050/0053

AUTHORS: Volchkov, E. P. (Novosibirsk); Kutateladze, S. S. (Novosibirsk); Leont'yev, A. I. (Novosibirsk)

TITLE: Interaction between a submerged turbulent jet and a solid wall

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 2, 1965, 50-53

TOPIC TAGS: Nusselt number, turbulent flow, turbulent jet, boundary layer, skin friction, Stanton number

ABSTRACT: The conservation law of wall turbulence relative to changes in boundary conditions was used to investigate the interaction between a submerged turbulent jet with a solid wall. The schematic of the flow is shown in Fig. 1 on the Enclosure. A momentum integral method is used to obtain the momentum conservation equation

$$\left[\frac{dR^{**}}{dX}+\left(1+\frac{\delta^{*}}{\delta^{**}}-\frac{\delta_1}{\delta^{**}}\right)\frac{R^{**}}{W_0}\frac{dW_0}{dX}\right]=\frac{C_{f1}}{2}R_1W_0$$

where

$$R^{**}=\frac{w_0\delta^{**}}{\nu_0},\quad X=\frac{x}{a},\quad W_0=\frac{w_0}{w_0},\quad \frac{C_{f1}}{2}=\frac{\tau_w}{\rho_0 w_0^2},\quad R_1=\frac{w_0 a}{\nu_0}$$

Card 1/3

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 52160-65
ACCESSION NR: AP5013370

and the velocity profile is determined from the one-seventh power law. An expression is derived for the skin friction coefficient C_f and, after a correlation with experimental data it, is reduced to the form

$$\frac{C_f}{2} = \frac{0.0314}{R_x^{0.2} X^{0.11}} \frac{\nu}{v_0}$$

Using this expression in the definition of the Stanton number, two equations are obtained for the nondimensional heat transfer coefficient which, for the submerged wall jet, is given by

$$N_x = \frac{\alpha x}{\lambda} = 0.1197 \left(\frac{w_0 x}{\nu_0}\right)^{0.8} X^{-0.4} P^{0.4}$$

and for the wall jet with a weak wake by

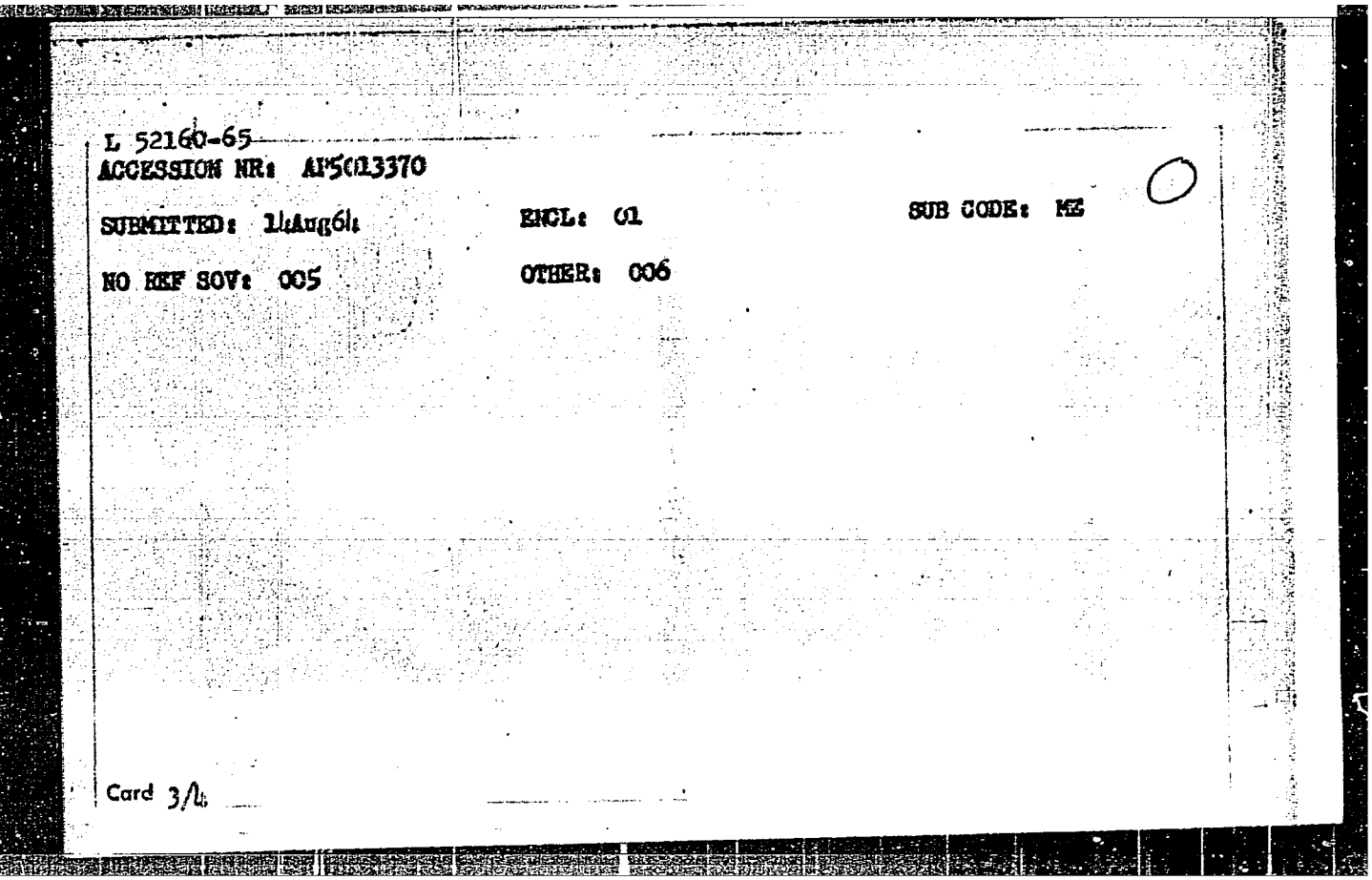
$$\frac{(\rho w)_\delta}{(\rho w)_\infty} > 3, \qquad S_t = \frac{0.113}{R_x^{0.2} X^{0.11} P^{0.6}}$$

This latter equation is shown to coincide with the results of M. Jakob, R. Rose, and M. Spielman (Heat Transfer From an Air Jet to a Plane Plate With Entrainment of Water Vapor From the Environment. Trans. ASME, 1950, vol. 72, No. 6) for Pr = 0.71. Orig. art. has: 23 equations and 4 figures.

ASSOCIATION: none
Card 2/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7



L 52160-65
ACCESSION NR: AP5013370

SUBMITTED: 14Aug64 ENCL: 01 SUB CODE: ME

NO REF SOV: 005 OTHER: 006

Card 3/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

KLYUCHNIKOV, A.D.; VOLCHKOV, E.P.

Increasing the uniformity of ingot heating in height, in recuperative soaking pits with heating from the hearth center. Izv. vys. ucheb. zav.; chern. met. 4 no.12:157-165 '61. (MIRA 15:1)

1. Moskovskiy energeticheskiy institut.
(Furnaces, Heating)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 22675-66 EWT(1)/EWP(m)/EWA(d)/EWA(1)
ACC NR: AP6009058 SOURCE CODE: UR/0207/66/000/001/0115/0120

AUTHOR: Volchkov, E. P. (Novosibirsk); Levchenko, V. Ya. (Novosibirsk)

ORG: none

TITLE: Efficiency of gas screens on a tubular surface

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1966, 115-120

TOPIC TAGS: heat transfer, cooling, thermal protection, wall cooling

ABSTRACT: Experiments were made to determine the efficiency of cold gas jets used for protecting duct walls from the heat transferred from a main gas stream. Cold air and air preheated to 55—100C were used as the hot and cold gases. The cold air was injected at 1—6 m/sec through a slit parallel to a corrugated wall consisting of ebonite cylinder sections. These sections were mounted on a panel and placed in the 150-mm-wide rectangular test section. Velocity and temperature profiles were measured at the inlet and in various cross sections of the test section. The data were correlated in terms of the main gas flow viscosity, wall temperature, Reynolds number, and distance from the inlet. The efficiencies of cold gas jets for protecting smooth and corrugated walls are compared. Orig. art. has: 4 formulas and 11 figures. [PV]

SUB CODE: 01/ SUBM DATE: 18Mar64/ ORIG REF: 004/ OTH REF: 005/ ATD PRESS: 4216

Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 5383-66 EWT(1)/EWP(m)/FCS(k)/EWA(1) WW
ACC NR: AP5027286 SOURCE CODE: UR/0207/65/000/005/0142/0146

AUTHORS: Volchkov, E. P. (Novosibirsk); Levchenko, V. Ya. (Novosibirsk)

ORG: none

TITLE: Effectiveness of gaseous screening in a turbulent boundary layer

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no, 5, 1965, 142-146

TOPIC TAGS: turbulent boundary layer, transpiration cooling, temperature distribution, heat transfer, Reynolds number

ABSTRACT: The effectiveness of slot and porous wall injection on the temperature distribution of a wall immersed in a hot flowing gas is investigated. The two types of transpiration cooling are described schematically in Figs. 1a and 1b. The wall is assumed to be adiabatic, and the heat transfer coefficient is expressed by the Stanton number

$$S = \frac{A}{R^{m-m_1}} p^{-0.75}$$

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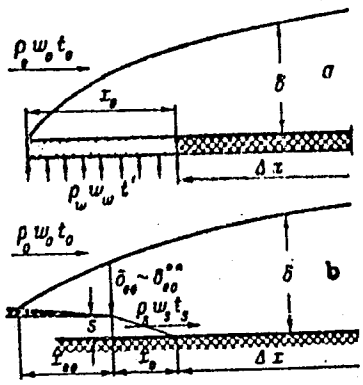

Fig. 1

For the porous wall case the wall temperature is described by the expression

$$\theta = \frac{t_0 - t_{aw}}{t_0 - t'} = \frac{\{[1 + 62.5(\mu_0 q^{-1} R_{\Delta x}^{0.8})^{-1.25}]^{0.114} - 1\}^{0.8}}{[1 + 0.016(\mu_0 q^{-1} R_{\Delta x}^{0.8})^{1.25}]^{0.16}}.$$

Two similar equations are obtained for the single slot injection case which for $m \ll 1$ becomes $\theta = \{[1 + 62(K + 0.143)^{-1}]^{0.114} - 1\}^{0.8} [1 + 0.016K]^{-0.16}$

Card 2/3

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 5383-66
ACC NR: AP5027286

and for $m \approx 1$ becomes $0 = ((1 + 62.5\,(K + 2)^{-1})^{0.8} - 1)^{0.8}\,(1 + 0.010K)^{-0.16}$.

All three equations above are shown graphically and compared with experimental data. The results are found to be satisfactory. Orig. art. has: 21 equations and 7 figures.

SUB CODE: ME/ SUBM DATE: 01Feb64/ ORIG REF: 006/ OTH REF: 005

Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, E.P. (Novosibirsk); KUTATELADZE, S.S. (Novosibirsk); LEONT'YEV, A.I. (Novosibirsk)

Interaction between a submerged turbulent jet and a rigid wall. PMTF no.2:50-53 Mr-Ap '65. (MIRA 18:7)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, E.P.; LEVCHENKO, V.Ye.

Thermal turbulent boundary layer on a flat plate with a heat-insulated section. Inzh.-fiz. zhur. 8 no.6:703-706 Je '65. (MIRA 18:7)

1. Institut teplofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 54827-65 EWT(m)/EPF(c)/EWG(v)/EPR/EPA(w)-2/EWP(j) Pc-4/Pab-10/Pe-5/Pr-4/Ps-4
WW/RM

ACCESSION NR: AP5016677 UR/0170/65/008/006/0703/0706
532.517.4

AUTHOR: Volchkov, E. P.; Levchenko, V. Ya.

TITLE: Thermal turbulent boundary layer on a plane plate with a heat-insulated section

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 6, 1965, 703-706

TOPIC TAGS: heat transfer, heat boundary layer, heat transfer coefficient

ABSTRACT: A thermal turbulent boundary layer on a plane plate with a heat-insulated section has been theoretically studied. Equations were derived for the thermic conditions both in front of and behind the insulated section using the published equation

$$St = A/Re_r^{n_1} Pr^{n_2}.$$

Results of the studies of the influence of the initial insulated section on the heat transfer coefficient and the distribution of temperature in the heat-insulated wall behind the heat transfer section are graphed. Orig. art. has: 20 formulas and 3 figures. [AC]

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 54827-65
ACCESSION NR: AP5016677

ASSOCIATION: Institut teplofiziki SO AN SSSR, Novosibirsk (Institute of Thermo-

NO REF SOV: 002 OTHER: 002 ATD PRESS: 4030

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 03825-67 EWT(1)/EWP(m) WW

ACC NR: AP6021363 SOURCE CODE: UR/0207/66/000/003/0149/0153

AUTHOR: Volchkov, E. P. (Novosibirsk); Kutateladze, S. S. (Novosibirsk); Levchenko, V. Ya. (Novosibirsk); Leont'yev, A. I. (Novosibirsk)

38

ORG: none

TITLE: Baffle cooling in the case of a current blowing into a turbulent boundary layer through multi-aperture and grid grates

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1966, 149-153

TOPIC TAGS: turbulent flow, boundary layer, cooled boundary layer

ABSTRACT: An analytic method is proposed for determining the effectiveness of baffle cooling of a plane thermally insulated wall when a cooling gas is delivered through grates. Results obtained for the cooling effect of a gas passing through a single aperture are shown to be applicable to the more complex problem. Equations for the degree of energy and momentum loss are introduced for the second aperture as an extension of those for the first. An estimate is then made of the effectiveness of heat protection, the measure of which is taken to be the temperature of the insulated wall. These estimates are shown to agree with experimental data. Orig. art. has: 23 formulas, 6 figures.

SUB CODE: 13/ SUBM DATE: 21Apr65/ ORIG REF: 006/ OTH REF: 002

Card 1/1 net

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, I., prepodavatel'

Instructive example. Prof.-tekh.obr. 19 no.1:21 Ja '62.
(MIRA 15:1)

1. Stroitel'noye uchilishche No.3, g. Orel.
(Communist education)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

22 (1)

AUTHOR: Volchkov, I., Chairman

SOV/27-59-2-14/30

TITLE: Our Experience (Nash opyt)

PERIODICAL: Professional'no-tekhnicheskoye obrazovaniye, 1959, Nr 2, p 22 (USSR)

ABSTRACT: The author discusses ways to improve the political awareness of students. In this connection, reference is made to the Orel Oblast' Methodological Union of Instructors of Political Subjects which began its regular activities at the pedagogical conference in August 1957. Much attention is paid to the mutual visits of instructors and the establishment of well-equipped study centers, where politico-educational activities are carried out. Ye. A. Atkosova of the Orlovskoye tekhnicheskoye uchilishche Nr 1 (Orel Technical School Nr 1) lectured to the Union on the experience gained by the school's circle for regional studies.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

ASSOCIATION: Metodicheskoye ob"yedineniye prepodavateley politzanyatiy Orlovskogo oblastnogo upravleniya trudovykh rezervov (Methodological Union of Instructors of Political Knowledge, Orel Oblast' Administration of Labor Reserves).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Ivan Ivanovich, kand. tekhn. nauk; LIPATOV, N.N., kand. tekhn. nauk, retsenzent; BOGATAYA, L.M., red.

[Separators for milk; their design, use, and repair] Separatory dlia moloka; konstruktsiia ekspluatatsiia i remont. 4. izd. Moskva, Pishchevaia promyshlennost', 1965. 205 p. (MIRA 18:6)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, I.I., inzh.; GUR'YANOV, A.I., inzh.

Hoist for hopper feeding. Mekh.i avtom.proizv. 17 no.11:24 N '63. (MIRA 17:4)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Ivan Ivanovich

[Operation and repair of cream separators] Ekspluatatsiia i remont molochnykh separatorov. Izd.3., ispr. Moskva, Pishchepromizdat, 1959. 139 p. (MIRA 13:6)
(Cream separators)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

AUTHORS: 1)Gorodskiy, D. A., Professor, Doctor of Technical Sciences, Volchkov, I. Ye., Engineer SOV/105-58-9-19/34
2)Ivanov-Smolenskiy, A. V., Docent, Candidate of Technical Sciences
3)Veretennikov, L. P., Docent, Candidate of Technical Sciences, Barinov, N. G., Docent, Candidate of Technical Sciences, Babushkin, M. N., Candidate of Technical Sciences Potapkin, A. I., Engineer
(Leningrad)

TITLE: Dynamic Models of Power Systems (O dinamicheckikh modelyakh energosistem)

PERIODICAL: Elektrichestvo, 1958, Nr 9, pp 80 - 82 (USSR)

ABSTRACT: Remarks concerning the paper by I.S.Bruk in Elektrichestvo, 1956, Nr 2. 1) According to the paper, the methods of using mathematical and physical models are contrary to each other. It is shown here that this is not correct and that a reasonable coordination of the two methods should rather be aimed at. 2) The author follows the opinion of M.P.Kostenko, V.A.Venikov and N.N.Shchedrin, and points out that for investigating transients in

Card 1/2

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Dynamic Models of Power Systems

SOV/105-58-9-19/34

electric power systems one should combine the results gained with dynamic models with those obtained by the use of electronic digital computers. 3) The authors ask for a combined use of dynamic models and computers. They show that even in such fields where digital computers prevail, one cannot do without dynamic models. There are 3 Soviet references.

ASSOCIATION: 1)Nauchno-issledovatel'skiy institut elektrotekhnicheskoy promyshlennosti (Scientific Research Institute of Electrical Industry)2) Moskovskiy energeticheskiy institut (Moscow Institute for Power Engineering)

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VALCHKOV, I. YE.

Vsesoyuznyy ob"yedinennyy nauchno-issledovatel'skiy proyektno-konstruktorskiy i tekhnologicheskiy institut elektroprivoda i avtomatizatsii sel'skokhozyaystvennogo proizvodstva. Trudy, vyp. 3, Moscow, 1959

Elektroprivod i avtomatizatsiya proyzvodstvennykh protsessov; trudy nauchnoy konferentsii (Elektrifikatsiya i Avtomatizatsiya Industrial'nykh Protsessov; Trudy Konferentsii) Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sirotin, and M.G. Chilikin; Eds.: I.I. Sud, and E.P. Silayev; Tech. Eds.: K.P. Voronin, and G.Ye. Larionov.

PURPOSE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

COVERAGE: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third Joint All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drive in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Gosplan SSSR (State Planning Commission USSR), the GNTK SSSR, the Gosudarstvennyy Komitet po avtomatizatsii i mashinostroyeniya (State Committee on Automation and Machine Building) and the National'nyy Komitet SSSR po avtomaticheskomu upravleniyu (USSR National Committee on Automatic Control) and prepared by the Nauchno-issledovatel'skiy institut po avtomatizatsii elektroprivoda (Scientific and Technical Committee on Automated Electric Drive), the VNIIEM, the IAE (Institute of Automation and Telemechanics) of the Academy of Sciences USSR, and the Komissiya po tekhnologii mashinostroyeniya Nauchnogo Soveta Instituta mashinovedeniya AN SSSR (Commission on the Technology of Machine Building of the Institute of Science of Machines of the Academy of Sciences USSR). It was the purpose of the Editorial Board to arrange the reports in a way which would ensure a relatively systematic presentation of theoretical and practical problems relating to electric drives and automatic controls of industrial mechanisms used in various branches of industry. Basic problems of automated electric drive and their solution are outlined. The book also contains articles on electric machinery and means of automation. Considerable attention is paid to non-contact automatic control systems, including systems with semiconductor devices and magnetic amplifiers, and to computers intended both for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Reports already published in journals or official publications have been considerably abbreviated; those which have appeared in Volume V of VII IF transactions or in the journal "Elektrichestvo" are marked with an asterisk. No personalities are mentioned. References accompany some of the papers.

PART: GENERAL PROBLEMS CONCERNING THE THEORY AND PRACTICE OF ELECTRIC DRIVE AND AUTOMATION OF CONTROL

Petrishin, N.M., Doctor of Technical Sciences, and P.K. Sakovich, Engineer. Synchronous Induction Machine and Prospects of Its Application* 421

Gornshteyn, F.Sh., Docent, Candidate of Technical Sciences. High-Power Rotating Amplifiers* 422

Zobenko, B.K., Docent, Candidate of Technical Sciences. Rotating Amplifiers With Longitudinal Field* 427

Bedin, V.A., Engineer. Rotating Amplifiers of Transverse Field With Radius Pick* 429

Zeydler, L.Ye., Candidate of Technical Sciences. Motor-Amplifiers Combining a Magnetic Amplifier With an Electric Machine* 430

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, K. B.

AUTHOR: Volchkov, K. B. (Moscow). 103-1-8/10

TITLE: Some Optimum Correlations for an Ideal Magnetic Amplifier Governed by an a.c.-Signal (Nekotoryye optimal'nyye sootnosheniya v ideal'nom magnitnom usilitele pri upravlenii signalom peremennogo toka).

PERIODICAL: Avtomatika i Telemekhanika, 1958, Vol. 19, Nr 1, pp. 85-94 (USSR).

ABSTRACT: In this paper induction-coil amplifiers with an active load, which are fed by an input a.c.-signal, which is represented by modulated oscillations of the carrier wave are analysed. In the case of full-wave rectification the doubled frequency of the amplyfier supply represents this carrier-frequency. Amplifiers of such a type are here referred to as a.c.-amplifiers. It is shown, that the determination of the coefficient of power amplification of an amplifier destined for a.c.-amplification according to the apparent- and true power is ineffective. The formula existing for this purpose do not permit to utilize fully the entire amplification scheme. Moreover, these formulae cannot be used for every type of magnetic amplifiers. It is proposed here to define the coefficient of power amplification as the ratio of the power output at a certain load to the maximum power, which can be delivered by the signal feeder at a tuned-in load. In the case of an ideal magnetic amplifier governed by a certain sinusoidal a.c.-signal the

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Some Optimum Correlations for an Ideal Magnetic Amplifier Governed by an a.c.-Signal. 103-1-8/10

maximum of power amplification (equalling the power maximum at load) occurs at a time lag of the governing circuit of the amplifier which is equal to the inverse value of the cyclic frequency of the signal. This condition determines the basic parameters of the amplifier and permits its economical lay-out. If it is desired to obtain a magnetic amplifier operating in a certain frequency range from ω_1 to ω_2 with a maximum mean coefficient of power amplification, then its time lag is to be selected according to $\tau = 1/\omega_1\omega_2$. If the frequency distortion coefficient is known, the time lag of the amplifier is determined from the two equations given here (29) or (30).
There are 6 figures, and 2 Slavic references.

SUBMITTED: January 30, 1957.

AVAILABLE: Library of Congress.

1. Magnetic amplifiers-Analysis 2. Magnetic amplifiers-USSR

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

PHASE I BOOK EXPLOITATION SOV/4452

Volchkov, Konstantin Konstantinovich, Boris Yakovlevich Grishkan, and Mikhail Markovich Zarkhin

Ekspluatatsiya setevykh sooruzheniy gorodskoy elektricheskoy seti (Operation of Line Structures of Municipal Electric Networks) Moscow, Gosenergoizdat, 1960. 394 p. Errata slip inserted. 20,000 copies printed.

Ed.: A.P. Shcheglov; Tech. Ed.: O.S. Zhitnikova.

PURPOSE: This book is intended for the foremen, electricians, and other workers of municipal electric networks. It may also be used as a handbook by technical personnel engaged in the operation or design of municipal networks and technical personnel of electric networks servicing industrial establishments.

COVERAGE: The book examines the arrangement and operation of the electric equipment and structures of municipal electric networks. The procedure of operation, maintenance, repair work, and the technical norms for work and materials based on the existing regulations are indicated. Information is given on accident prevention measures. The book is based on experience gained from many years of

Card 1/6

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

operating the Leningrad municipal network in conformity with the requirements of technical progress, automation, mechanization, and new methods of work organization. Stress is laid on practical data which should be useful for the operation of the network of any large city. The authors thank A.K. Mann, Candidate of Technical Sciences, B.M. Baranov, P.K. Pokla[illegible], L.P. Smirnov, G.I. Fomichev, and I.A. Fridkin, Engineers of the Moskovskaya kabel'naya set' (Moscow Cable Lines), who reviewed the book, as well as Engineer A.P. Shcheglov, its editor. Chs. I, V, and VI were written by M.M. Zarkhin; Chs. II and III by B. Ya. Grishkan; Ch. IV by K.K.Volchkov. There are 47 references, all Soviet.

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, K.S. (Moskva).

Optimum correlations for an ideal magnetic amplifier controlled by alternating-current signals [with summary in English]. Avtom. i telem. 19 no.1:85-94 Ja '58. (MIRA 11:1)
(Magnetic amplifiers)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

SOV/136-59-4-9/24

AUTHOR: Volchkov, N.A.,

TITLE: Some Problems in the Conversion of Arsenical Cobalt-Nickel Ores to Speiss (Nekotoryye voprosy pererabotki mysh'yakovistykh kobal'to-nikelevykh rud na shpeyzu)

PERIODICAL: Tsvetnyye metally, 1959, Nr 4, pp 42-49 (USSR)

ABSTRACT: In the post-war period a large deposit of cobalt-nickel arsenic ores has been discovered in Siberia, differing (Ref 5) from that being worked in the Caucasus. The aim of the author's work, carried out in 1955-57 on a laboratory and larger scale at the Ufaleyskiy nikelevyy zavod (Ufaley nickel works) was to supplement the scant published information on the smelting of such ores. The composition used was 2.0% Co, 2.9% Ni, 3.65% Fe, 15.67% As and 6.32% S, about 50% being represented by primary arsenides and 50% by arsenic oxidised minerals (table 1). To find the influence of added carbon on the yield and composition of the speiss and slag, 40-60 kg samples of ore in the works stockyard were taken and analysed (results are shown in table 2). 100-500 g of ore and 0-10% of its weight of metallurgical coke were

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Some Problems in the Conversion of Arsenical Cobalt-Nickel Ores to Speiss

used for laboratory smelting tests. The charge was (1 mm size) heated to 1350-1400°C, maintained at this temperature for 30 minutes and then cooled in air. The solidified product was broken up and the speiss separated from the slag. For the larger-scale work 20 kg of ore, 0.8 kg coke, 0.8 kg lime and 0.6 kg fluorspar crushed to 3-5 mm were heated to 1300°C, maintained at this temperature for a few minutes and then cooled in air. The author discusses the theory of ore smelting to speiss in terms of the behaviour of various elements. He concludes that with a partially oxidised ore this should be effected in a reducing atmosphere and that the basic facts for arsenical cobalt-nickel ore is the greater affinity of cobalt and nickel, compared with iron, towards arsenic than towards oxygen, as a result of which iron goes into slag and cobalt and nickel into speiss. Table 3 shows ore and speiss compositions, charge coke-content and speiss yield for the laboratory experiments, the yield increasing

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Some Problems in the Conversion of Arsenical Cobalt-Nickel Ores to Speiss

with increasing charge coke content. The speiss composition as a function of the reducing-agent content of the charge being shown in Fig 1. The total cobalt and nickel content of the speiss is sufficient for the hydrometallurgical extraction of these metals. The different degrees of concentration (content in speiss: content in ore) for the different metals in relation to the reducing-agent content of the charge is shown in Fig 2 for the smelting of two ores. By changing the reducing-agent content the ratio of cobalt and nickel to iron in the speiss can be altered. The distribution of cobalt and nickel between speiss and slag is shown in Fig 3 as functions of the [Fe]:(Fe) ratio; Fig 4 shows that of cobalt as functions of [Fe]:(Fe) and of [Fe + Ni]:(Fe + Ni). As shown by the tabulated results (table 4) the arsenic content of the speiss has not much effect on the cobalt and nickel distributions, though there is some tendency for the distribution coefficients to decrease when

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Some Problems in the Conversion of Arsenical Cobalt-Nickel Ores to Speiss

(cobalt + nickel + iron) : arsenic in the speiss decreases. The values of the nominal equilibrium coefficients given in this table agree well with some published values (Ref 7, 8, 9). Table 5 gives data on the recovery of cobalt and nickel into the speiss for the laboratory tests: maximal recovery was obtained with 4 to 6% coke in the charge, the cobalt and nickel losses in the slag then being 0.62 to 1.95 and 1.27 to 2.95% respectively. By regulating the reducing-agent content of the charge the degree of removal of sulphur and arsenic into the gas could be varied. The slag composition corresponding to minimal cobalt and nickel contents was found in the flux-less experiments to be 38 to 42% SiO_2, 34 to 36% CaO, 6 to 8% FeO, 4.6% MgO and 12 to 16% Al_2O_3, which was highly fluid at 1400°C. The author concludes that his work proves the possibility of applying flux-less smelting in a

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Some Problems in the Conversion of Arsenical Cobalt-Nickel Ores to Speiss

reducing atmosphere to the ores investigated. There are 4 figures, 5 tables and 9 references, 7 of which are Soviet and 2 German.

ASSOCIATION: Ufaleyskiy nikelevyy zavod (Ufaley Nickel Works)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, P., inzh.

Experience in using composite girders and trusses 24 meters in length. Stroitel' no.6:11-13 Je '58. (MIRA 11:7)

1.Starshiy proizvoditel' rabot UNR-77 tresta No.16, Minsk.
(Girders) (Trusses)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, P.

VOLCHKOV, P., inzh.

Using NII-200 girders. Stroitel' no.12:2-3 D '57. (MIRA 11:2)
(Girders)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, P.B. (Moskva)

Evaluation of the function of the adrenal cortex in hypertension by the excretion of 17-ketosteroids with the urine. Klin.med. 40 no.5:77-85 '62. (MIRA 15:8)

1. Iz Glavnogo voyennogo gospitalya imeni akad. N.N. Burdenko.
(HYPERTENSION) (ADRENAL CORTEX)
(URINE--ANALYSIS AND PATHOLOGY)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, P.I.

New design of nozzles for the SM-537 hydraulic jack. Suggested by P.I.Volchkov. Rats.i izobr.predl.v stroi. no.11: 21-22 '59. (MIRA 13:3)

1. Po materialam spetstresta No.16 "Stroymontazh" Ministerstva stroitel'stva BSSR.

(Hydraulic jacks)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, P.M., inzh.; OLENDAREV, N.S., inzh.; RYKOV, V.D., inzh.

Shaft sinking with preliminary rock cementation. Shakht. stroi. no.6:27-29 '58. (MIRA 11:6)
(Shaft sinking) (Grouting)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

KOMSKIY, D. Prinimali uchastiye: VOLKOV, V.; VOLCHKOV, V.; GORSHKOV, A. KOPYTOV, Ye.; SALOV, V.; SHORIKOVA, T.; STOLYAROV, Yu., red.

[Cybernetics made easy] Prostaia kibernetika. Moskva, Molodaia gvardiia, 1965. 158 p. (MIRA 18:7)

1. Sverdlovskiy gosudarstvennyy pedagogicheskiy institut (for all except Stolyarov).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, V.

Victory is born of labor. Prof.-tekh. obr. 14 no.1:30 Ja '57. (MLRA 10:2)

1. Pomoshchnik direktora po kul'turno-vospitatel'noy rabote Zhukovskogo uchilishcha mekhanizatsii sel'skogo khozyaystva (Akmolinskaya oblast'.).
(Akmolinsk Province--Farm mechanization--Study and teaching)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

23562

S/118/61/000/005/005/006
D203/D306

9,2584

AUTHORS: Shaporov, B.D. and Volchkov, V.F., Engineers

TITLE: A contactless transmitter

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 5, 1961, 35-36

TEXT: A contactless transmitter of the type ДИП — 1 (DIP-1) induction type semiconductor transmitter) has been designed in the Laboratoriya avtomatiki (Automation Laboratory) of the Pervoural'skiy Novotrubnyy zavod (Pervoural Novotrubnyy Plant) (Fig. 1).

Fig. 1. Circuit diagram of the transmitter. L_1 - 700 turns; L_2 - 350 turns; C_1 - 0.07; C_2 - 0.1; C_3 - 1.0; R - 7.5 Kilohms

For figure 1 see card 3/3

Card 1/3

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

23562

S/118/61/000/005/005/006
D203/D306

A contactless transmitter

A triode of the type П4Y (P4U) is used as generator of the sinusoidal oscillations. Its collector circuit is connected to the winding of a relay. The interconnected collector and base circuits of the triode generate self-oscillations and there is mutual induction between the windings L_1 and L_2, situated at some distance apart. When a metallic screen is introduced into the air gap between the windings L_1 and L_2, the oscillations of the generator cease. The resistance of the collector circuit of the triode in the absence of oscillations is much smaller than in their presence and, thus, the current in the collector circuit increases when the oscillations cease. The current increase brings the relay into operation. The relay of the transmitter is 20V. The transmitter works in a stable manner when the distance between the faces of the transmitter is 40 mm or less. The accuracy of the breaking screen position is 1 mm when the width of the metallic screen is equal to the double width of the face; the limiting factor for the speed of the screen is the relay speed. The transmitter of the type (DIP-1) works in a stable manner at a screen speed of up to 16 mm per/sec.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

23562

S/118/61/000/005/005/006
D203/D306

A contactless transmitter

in the Pervoural Novotrubnyy Plant. Improvements are being made to the transmitter by widening its range. There are 3 figures.

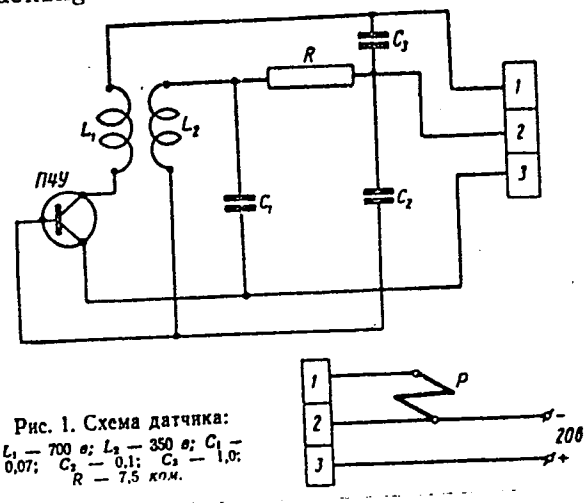

Рис. 1. Схема датчика: L_1 — 700 в; L_2 — 350 в; C_1 — 0,07; C_2 — 0,1; C_3 — 1,0; R — 7,5 ком.

Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

MEL'NICHENKO, N.T., inzh.; VOLCHKOV, V.G., inzh.

Reliability of TS-500 welding transformers. Svar. proizv. no.11:46-47 N'63. (MIRA 17:5)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

BARABASHKIN, I.I.; VOLCHKOV, V.I.; RAZHEV, S.M.

Testing pin roller bits used in prospecting. Razved.i okh.nedr. 28 no.11:26-30 N '62. (MIRA 15:12)

1. TSentral'noye konstruktorskoye byuro Ministerstva geologii i okhrany nedr SSSR.

(Boring machinery--Testing)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, V M.

AID P - 5465

Subject : USSR/Aeronautics - remote control

Card 1/1 Pub. 135 - 11/29

Author : Volchkov, V. M., Eng.-Captain

Title : Aviation jet armament

Periodical : Vest. vozd. flota, 2, 45-56, F 1957

Abstract : A description of principles of various remote control systems of missiles is given in this article. Eight diagrams, 1 graph. The article is of informative value.

Institution : None

Submitted : No date

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, V.Ye. [Valchkou, V.E.]

Morphoanatomical characteristics of feeding roots of some woody plants. Vestsi AN BSSR. Ser. biial. nav. no.3:55-61 '65. (MIRA 18:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Ye.

Our ferrous metals trade. Vnesh.torg. 28 [i.e. 29] no.1:38 '59. (MIRA 12:2)

1. Predsedatel' Vsesoyuznogo eksportno-importnogo ob"yedineniya "Promsyr'yeimport."
(Metal trade)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Ye.I. (Odessa)

Glue used in repairing removable plastic dental prosthesis.
Stomatologiia 42 no.3: 100-101 My-Je '63 (MIRA 17:1)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Yu.M. (Novosibirsk)

Axisymmetric problem of the creep of circular cylindrical shells.
Izv. AN SSSR. Mekh. no.5:118-121 S-O '65. (MIRA 18:10)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

DANILOVA, T.N., kandidat tekhnicheskikh nauk; VOLCHKOVA, A.T., starshiy inzhener

[Album of machinery, tools and apparatus for finishing work in the repair of building facades] Al'bom mekhanizmov, instrumentov i prisposobleniі dlia proizvodstva otdelochnykh rabot pri remonte fasadov zdanii. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1956. 70 p. (MIRA 9:8)

1. Akademiya kommunal'nogo khozyaystva, Moscow. Nauchno-issledovatel'skiy institut, Leningrad. 2. Leningradskiy nauchno-issledovatel'skiy institut Akademii kommunal'nogo khozyaystva im. K.D.Pamfilova

(Building machinery)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

MIRONOVA, M.N., kandidat tekhnicheskikh nauk; VOLCHKOVA, A.T., inzhener.

Wintertime repair of building facades in Leningrad. Gor.khoz. Mosk. 29 no.11:17-17 N '55. (MLRA 9:3)
(Leningrad--Building--Repair and reconstruction)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

RODNOV, V.I.; MARTYNOV, B.P.; VASIL'YEV, N.V.; NIKOLAYENKO, B.Z.; GUROV, Ye.P.; VOLCHKOV, Ye.P.; NICHKOV, V.N.; MARKELOV, I.A.; GUBANOV, M.V.

What does you association offer for the 43d anniversary of the Great October? Chiefs of all-union associations speak. Vnesh. torg. 30 no.10:28-33 '60. (MIRA 13:10)

1. Predsedatel' Vsesoyuznogo ob"yedineniya "Mashinoeksport" (for Rodnov). 2. Predsedatel' Vsesoyuznogo ob"yedineniya "Mashonoimport" (for Martynov). 3. Predsedatel' Vsesoyuznoye ob"yedineniye "Mashpriborintorg" (for Vasil'yev). 4. Predsedatel' Vsesoyuznogo ob"dineniya "Tekhnopromimport" (for Gubanov). 5. Ispolnyayushchiy obyasannosti predsedatelya Vsesoyuznogo ob"yedineniya "Soyuzpromeksport" (for Nikolayeko). 6. Predsedatel' Vsesoyuznogo ob"yedineniya "Soyuznefteeksport" (for Gurov). 7. Predsedatel' Vsesoyuznogo obyedineniya "Promsyr'yeimport" (for Volchkov). 8. Predsedatel' Vsesoyuznogo ob"yedineniya "Eksportles" (for Nichkov). 9. Predsedatel' Vsesoyuznogo ob"yedineniya "Raznoeksport" (for Markelov).
(Russia--Commerce)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Yu.A.; VOROBTSOVA, I.Ye.

Comparative study of the frequency of occurrence of dominant lethal mutations in various Drosophila melanogaster stocks. Vest. LGU 19 no.15:124-129 '64.

(MIRA 17:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, Yu.A.; ALEKSANDROV, Yu.N.

Relation between the frequency of the occurence of phenocopies and the X-ray dose. Vest. LGU 18 no.21:95-105 '63 (16:12)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

S/095/60/000/012/002/003
A053/A129

AUTHOR: Volchkova, N.S., Engineer

TITLE: The need of new devices for insulation inspection

PERIODICAL: Stroitel'stvo truboprovodov, no. 12, 1960, 16

TEXT: The modern method of lowering pipelines into the trench immediately after insulation calls for urgent development of a new device for inspecting and checking the quality of the insulation. The flaw detector offered by VNIIST applies rather to the old technology, whereby pipes were insulated and lowered separately into the soil. In the opinion of the author the problem could be solved best by combining the design of the experimental flaw detector of VNIIST, which was tested in 1960 and the device proposed by Rumyantsev, Chief Mechanic of the SU-5 trust of Mosgazprovodstroy. In accordance with this proposal the heavy electric part of the mechanism of the device should be placed on the insulator and the light metal ring on the pipeline, both moving along as the work progresses. Unfortunately a trial model providing for such a combination has not yet been produced. The author further comments on the flaw detector issued by VNIIST intended for heavy and extra-heavy insulation. Practical tests on the pipeline con-

Card 1/2

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struction Serpukhov-Leningrad revealed serious shortcomings of the proposed device. In this connection the question arises whether there is any use in a flaw detector for heavy insulation which signals only the presence of complete lack of insulation in certain places and not insufficient thickness of same. Even flaw detectors working on a voltage of 36,000 v do not locate a defect consisting in a layer of insulation as thin as a tenth of a millimeter. In case of extra-heavy insulation the flaw detector does not react to such changes in the thickness of the insulation as a drop from 9 to 1 - 2 mm. A flaw detector must be able to register any difference in the thickness of insulation layers. It is up to VNIIST to develop such a device. The magnetic thickness meters offered by VNIIST can only be used with insulated pipes lying on ground rests. There is also need of a device capable of revealing the strength of cohesion between pipe and insulation. The idea of such a device has not been pursued beyond the issue of a test model.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

S/181/61/003/011/053/056
B109/B102

AUTHOR: Volchok, B. A.

TITLE: Optimum regime of the zone levelling process

PERIODICAL: Fizika tverdogo tela, v. 3, no. 11, 1961, 3549-3550

TEXT: Earlier papers of the author (Ref. 1: B. A. Volchok, FTT, 3, 1233, 1961; Ref. 2: B. A. Volchok, V. Ya. Frenkel', FTT, 8, 2010, 1961; Ref. 3: B. A. Volchok, V. Ya. Frenkel', IFZh, avgust, 1961) are supplemented by a) calculating that width b = b(1) of the fluid zone at which the levelling process is completed already after two cycles, and b) by application of the formulas obtained to the alloying process. a) b_1 denotes the value of b(1) at the left end of the sample, b_0 the value of b(1) at the rigth end, Y_0' = const is the initial distribution of the admixture, k = const is the segregation coefficient, l_0 is the sample length. Proceeding from the equations for the concentration given in Ref. 2.

Card 1/4

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Optimum regime of the zone ...

$$2\frac{k}{b_1}y_{10}l + C = (Y_0 + y_{10})z + (1-k)Y_0\exp(-z). \quad (6)$$

is obtained for the first two cycles for the sought b(1) where

$$C = (1-k)\exp\left\{-\frac{k}{b_1}(l_0 - b_1)\right\} - k. \quad (7)$$

In this case $y_2(1) = y_1(1 - b/2)\big|_{l=l_0-b_1/2} = y_{10} = Y_0\left[1-(1-k)\exp\left\{-\frac{k}{b_1}(l_0-b_1)\right\}\right]$

b) The alloying process differs from the zone levelling process only in that the initial distribution of the admixture in the sample (apart from the fluid zone) is equal to zero. Hence, in analogy to Ref. 1,

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Optimum regime of the zone ...

$$y_{2n}(x+k)=\frac{ky_0}{1+x_0-k}\times$$

$$\times\left[1-\frac{4y}{x_0-k}\,\frac{\cos\frac{x_0-x-k}{x_0-k}y}{\sin y\left[1+\frac{y^2}{(x_0-k)(x_0-k+1)}\right]\left[1+\frac{y^2}{(x_0-k)^2}\right]^n}\right], \tag{8}$$

$$y_{2n+1}(x)=\frac{ky_0}{1+x_0-k}\times$$

$$\times\left[1-\frac{4y}{x_0-k}\,\frac{\cos\frac{x_0-x-k}{x_0-k}y-\frac{y}{x_0-k}\sin\frac{x_0-x-k}{x_0-k}y}{\sin y\left[1+\frac{y^2}{(x_0-k)(x_0+1-k)}\right]\left[1+\frac{y^2}{(x_0-k)^2}\right]^{n+1}}\right], \tag{9}$$

are obtained for an arbitrary number of cycles where y is the first positive root of the equation (22) in Ref. 1. There are 3 Soviet references.

Card 3/4

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Optimum regime of the zone ...

S/181/61/003/011/053/056
B109/B102

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe, AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe, AS USSR Leningrad)

SUBMITTED: August 1, 1961

Card 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

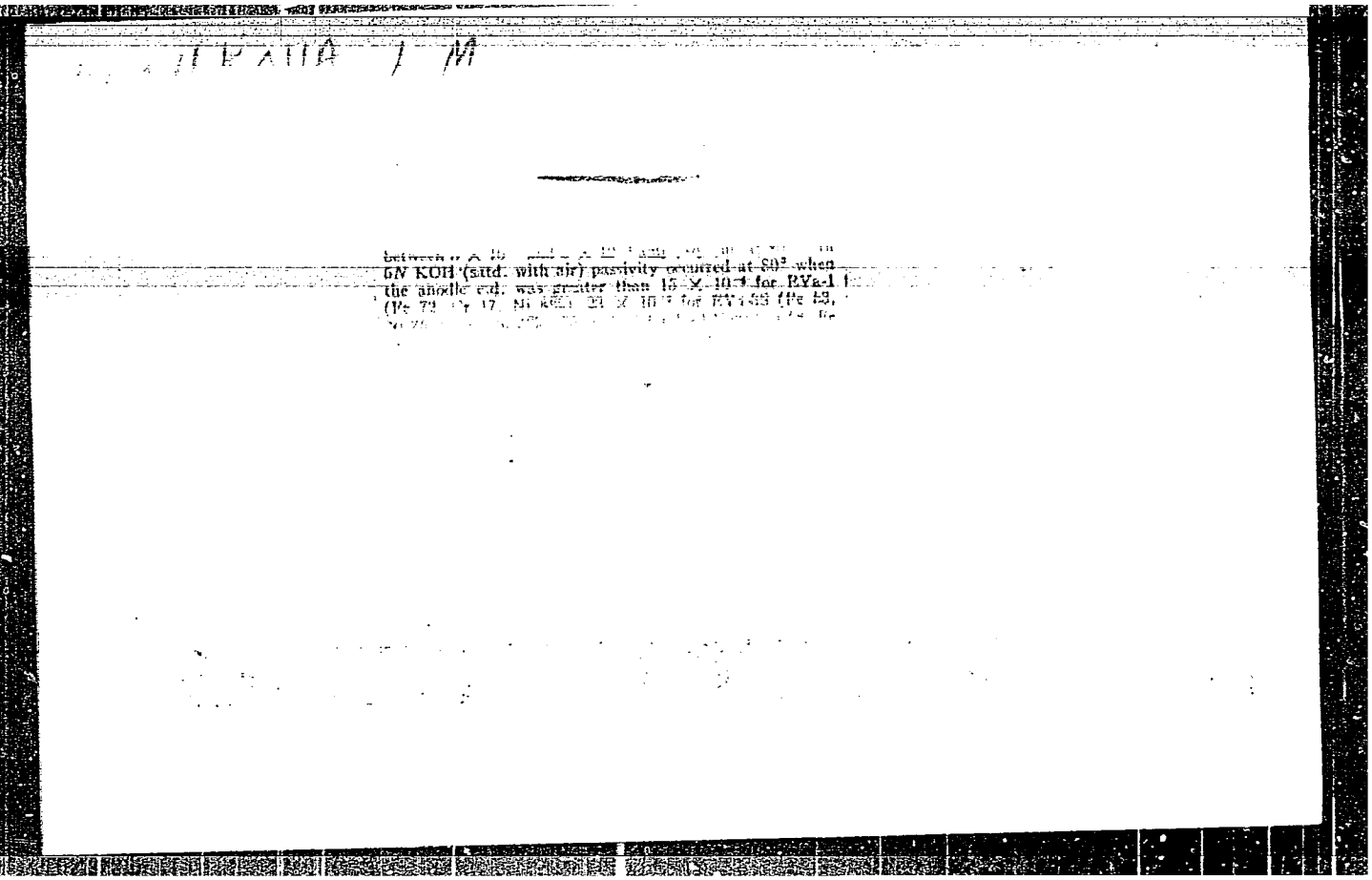
"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHOK, V.I., inzh.; NOVIKOV, P.A., inzh.

Machines for laying precast reinforced concrete supports in horizontal tunnels. Mekh. trud. rab. 12 no.2:25-27 F '58.
(Mine timbering) (MIRA 11:3)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7



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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, A.V.

Melorheostosis (Leri's disease). Ortop., travm. i protez. 17 no.1: 54-56 Ja-F '56. (MLRA 9:12)

1. Iz Fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. M.G.Ruditskiy) Kurskogo meditsinskogo instituta (dir. - prof. A.V.Savel'yev)
(OSTEOSCLEROSIS
melorheostosis)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, A.V.

Diagnostic role of arteriography in tumors of the extremities.
Ortop.travm. i protez. 18 no.6:28-30 N-D '57. (MIRA 11:4)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. M.G.Ruditskiy)
Kurskogo meditsinskogo instituta (dir. - prof. A.V.Savel'yev)
(EXTREMITIES, neoplasms
diag., x-ray arteriography)
(ANGIOGRAPHY, in various dis.
cancer of extremities, diag. value)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, A.V.

Problem of xanthomatosis ossium. Pediatriia 39 no.2:80-82 Mr-Ap '56. (MLRA 9:8)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. M.G. Ruditskiy) Kurskogo meditsinskogo instituta (dir. - prof. A.V. Savel'ev)

(LIPOIDOSIS, in infant and child,
xanthomatosis of cranium (Rus))
(CRANIUM, diseases,
xanthomatosis in child (Rus))

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, B.P.

Reserpine in treating hypertension. Klin.med. 35 no.3:151-152 Mr '57.
(MLRA 10:7)
(HYPERTENSION, ther.
reserpine (Rus))
(RESERPINE, ther. use
hypertension (Rus))

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

V-5

VOLCHKOV, B. P.

USSR/Pharmacology. Toxicology. Cardio-Vascular Drugs.

Abs Jour : Ref Zhur-Biol., No 6, 1958, 28089.

Author : Volchkov B. P.

Inst : Not given.

Title : Experiment of Application of Reserpine in the Therapy of Hypertonic Patients.

Orig Pub : Klinich. meditsina, 1957, 35, No 3, 151-152.

Abstract : Twenty-eight patients who have been ill with hypertonia for periods of 3-5 years were treated with reserpine which was administered by mouth in daily doses of 0.25-0.5 mg which were gradually increased to 0.75-2 mg. The appearance of definite side reactions contraindicated an increase in doses. Duration of treatment was 20 days. A good

Card 1/2

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R0018604

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, B.P. (Moscow).

Clinical aspects of gastrointestinal reticulosis. Klin.med. 31 no.8:80-82 Ag '53. (MLRA 6:11)
(Digestive organs--Tumors) (Reticulo-endothelial system--Diseases)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, B.P. (Moskva)

Clinical aspects of acute disseminated lupus erythematosus. Klin. med. 35 no.6:90-98 Je '57. (MLRA 10:8)
(LUPUS ERYTHEMATOSUS, DISSEMINATED, case reports
clin. aspects)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, I.; YALYSHEV, P.

Development of business accounting at the Ural Railroad Car Construction Plant. Sots.trud 4 no.11:109-116 N '59. (MIRA 13:4)

1. Nachal'nik tsekha ram i ferm Uralvagonzavoda(for Volchkov).
2. Nachal'nik byuro organizatsii truda i zarabotnoy platy tsekha chugunnogo i tsvetnogo lit'ya Uralvagonzavoda (for Yalyshev).
(Railroads--Cars--Construction)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

1. VOLCHKOV, I., Eng.

2. USSR (600)

4. Cream Separators

7. Apparatus for dynamic blancing of separator drums. Moloch.prom., 14, no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, ~~April~~ 1953, Uncl.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

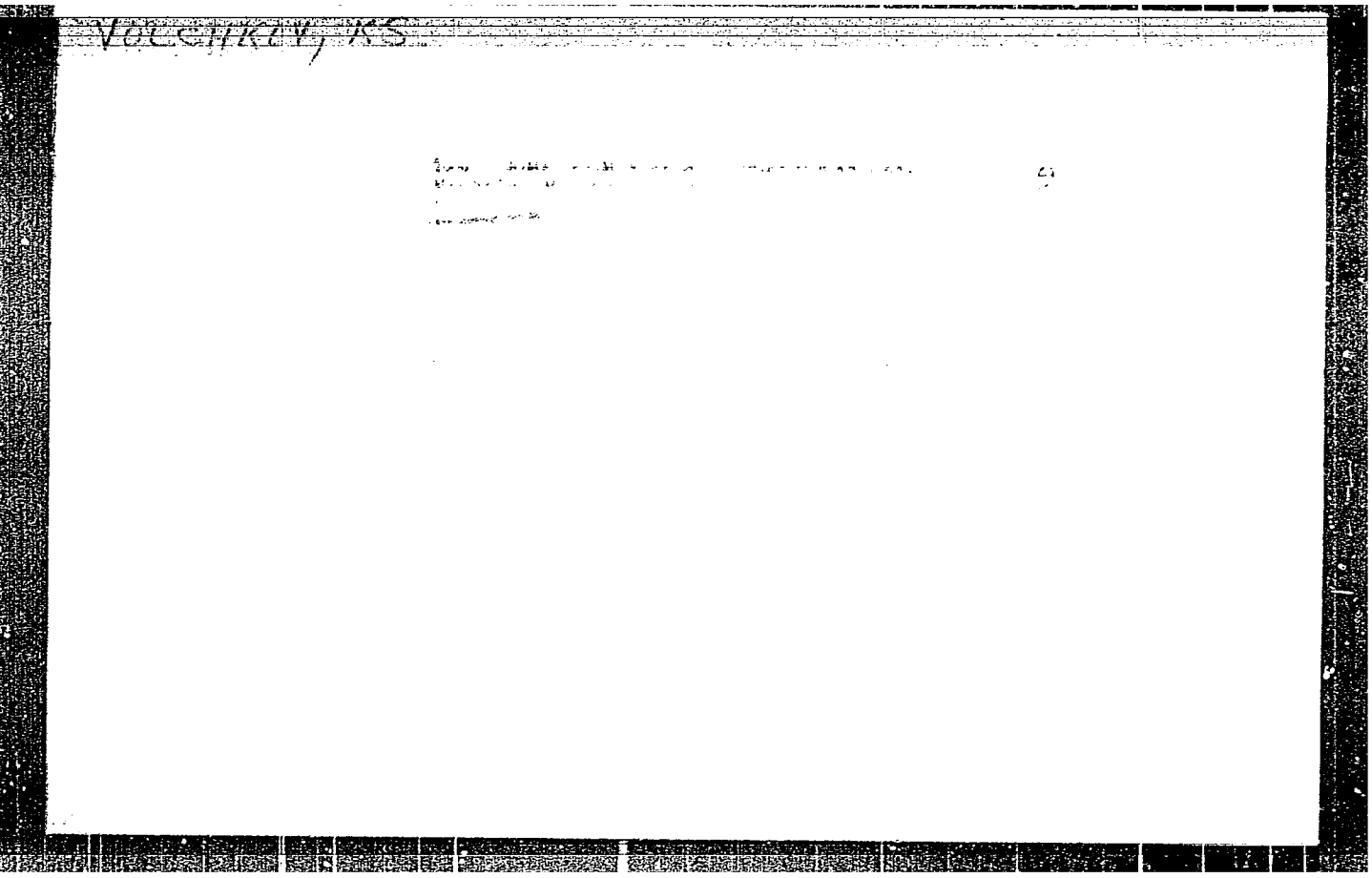
"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

GUBANOV, Aleksandr Ivanovich; NOVOZHILOV, Yu.V., redaktor; VOLCHOK, K.M., tekhnicheskiy redaktor

[A theory of the rectifying activity of semiconductors] Teoriia vypriamliaiushchego deistviia poluprovodnikov. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 348 p. (MLRA 9:10)
(Semiconductors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7



APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

KRASNITSKIY, L.Ya.; EDEL'SON, A.Z.; VOLCHKOV, L.B.

Automatic production line for drills with a diameter from 3 to 6 mm. Stan.i instr. 32 no.9:30-33 S '61. (MIRA 14:8)
(Moscow--Metal-cutting tools)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, N. A. Cand Tech Sci -- "For the problem of electric smelting of ~~arsenic~~ arsenide cobalt-nickel ore for speiss." Sverdlovsk, 1960. (Min of Higher and Secondary Special Education RSFSR. Ural [redacted] Polytechnic Inst im S. M. Kirov). (KL, 1-61, 192)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHOK, P.S., arkhitektor.

Large block apartment houses for coal basin building developments.
Shakht.stroi. no.2:11-16 F '57. (MLRA 10:7)

1. TSentrogiproshakhtostroy.
(Concrete blocks) (Apartment houses)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, V.; YELYASHVILI, A. I.

Farm Buildings

Constructing reed-roofed sheep sheds. Sots.zhiv. 14, No. 9, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, V.G., inzhener.

Jointing pliers from side-cutting pliers. Energetik 4 no.9:25-26 S '56. (Pliers) (MLRA 9:10)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

1. VOLCHKOV, V. G.; ELYASHVILI, A. I.

2. USSR (600)

4. Silos

7. Silo construction. Sots. zhiv. 15, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 05006-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6031068 SOURCE CODE: UR /0277/66/000/007/0002/0002

AUTHOR: Volchkov, V. M.; Pavlov, A. I.; Pashkov, P. O.

TITLE: Concerning a case of the realization of theoretical strength

SOURCE: Ref. zh. Mashinostr mat konstr i raschet detal mash. Gidropr, Abs. 7.48.7

REF SOURCE: Sb. Materialy Nauchn. konferentsii. Sovnarkhoz Nizhne-Volzhsk. ekon. r-na. Volgogradsk. politekhn. in-t. T.I. Volgograd, 1965, 319-323

TOPIC TAGS: strength, theoretical strength, metal deformation, material deformation, metal bond

ABSTRACT: A comparison was made between high-speed deformation pressure and theoretical strength in the impact region, when fusion of metals occurs. For an intensive plastic flow, deformation of the surface layers of plates, the generation of heat in them, and the formation of metallic bonds, it is necessary to achieve pressures corresponding to the order of theoretical strength. From investigations it is deduced that tht process of high-speed setting is actually determined only by the elastic properties of the materials, irrespective of their macrostructure. [Translation of abstract]

Card 1/1 SUB CODE: 13/ UDC: 539.4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOV, V.Ye. [Vauchkou, U.E.]

Growth and development of physiologically active roots in woody plant seedlings during vegetation period. Vestsi AN BSSR. Ser. biial. nav. no.1:38-44 '65. (MIRA 18:5)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

L 10715-67 EWT(m)/EWT(k)/EWT(t)/ETI UR

ACC NR: AR6013850 (A,N) SOURCE CODE: UR/0276/65/000/011/G046/G046

21

AUTHORS: Gerike, L.; Volchkov, Ye.; Lykasov, N.; Bogarsukov, I.

TITLE: Department of high accuracy casting with the use of melting patterns, at the Kuznetsk machine construction factory

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 11G360

REF SOURCE: Tr. Mezhotrasl. n.-i. proyektno-tekhnol. in-ta po avtomatiz. i mekhaniz. mashinostr. vyp. 1, 1963, 154-159

TOPIC TAGS: metal casting, machine industry

ABSTRACT: A casting department, designed by the MNIIPTMASh institute for producing 1000 tons/year, is described. The project includes three independent sections: a section for producing low temperature melting patterns, application of heat resistant layers, drying of the molds and burning out the patterns; a section for drying, forming, firing, pouring, and removal of the castings; a section for trimming, cleaning, and leaching of the castings. Yearly output per worker will be 1.5 times higher than at the casting department of the Podol'sk mechanical factory and 2.5 times higher than at the existing casting department of the Kuznetsk factory. 4 illustrations. Bibliography of 4 titles. L. Yanovskaya [Translation of abstract]

SUB CODE: 13, 11

Card 1/1 BP UDC: 621.74.045

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

KHIMUNIN, S.D., kand. tekhn. nauk; SHARLYGINA, K.A., ml. nauchn. sotr.; VOLCHKOVA, A.T., st. inzh.; Prinimali uchastiye: POPOVA, N.V., inzh.; BYCHKOVA, A.A., inzh.; SKARBOVICHUK, T.G., inzh.; VIYRA, I.I., arkhitektor; SHEYNA, T.M., st. tekhnik

[Recommendations on redesigning and improving the living conditions of apartment houses of old towns] Rekomendatsii po pereplanirovke i povysheniiu blagoustroistva zhilykh domov staroi zastroiki gorodov. Leningrad, Stroiizdat, 1965. 131 p. (MIRA 18:8)

1. Akademiya kommunal'nogo khozyaystva. Leningradskiy nauchno-issledovatel'skiy institut. 2. Rukovoditel' laboratorii kapital'nogo remonta zhilykh domov Leningradskogo nauchno-issledovatel'skogo instituta Akademii kommunal'nogo khozyaystva im. K.D.Pamfilova (for Khimunin).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

RYTSLIN, A.M., inzh.; NIKONOV, V.I., inzh.; VOLCHKOVA, L.A., inzh.

Heating of power trnasformers with rectified current. Energetik.
13 no.4:22-24 Ap '65. (MIRA 18:6)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

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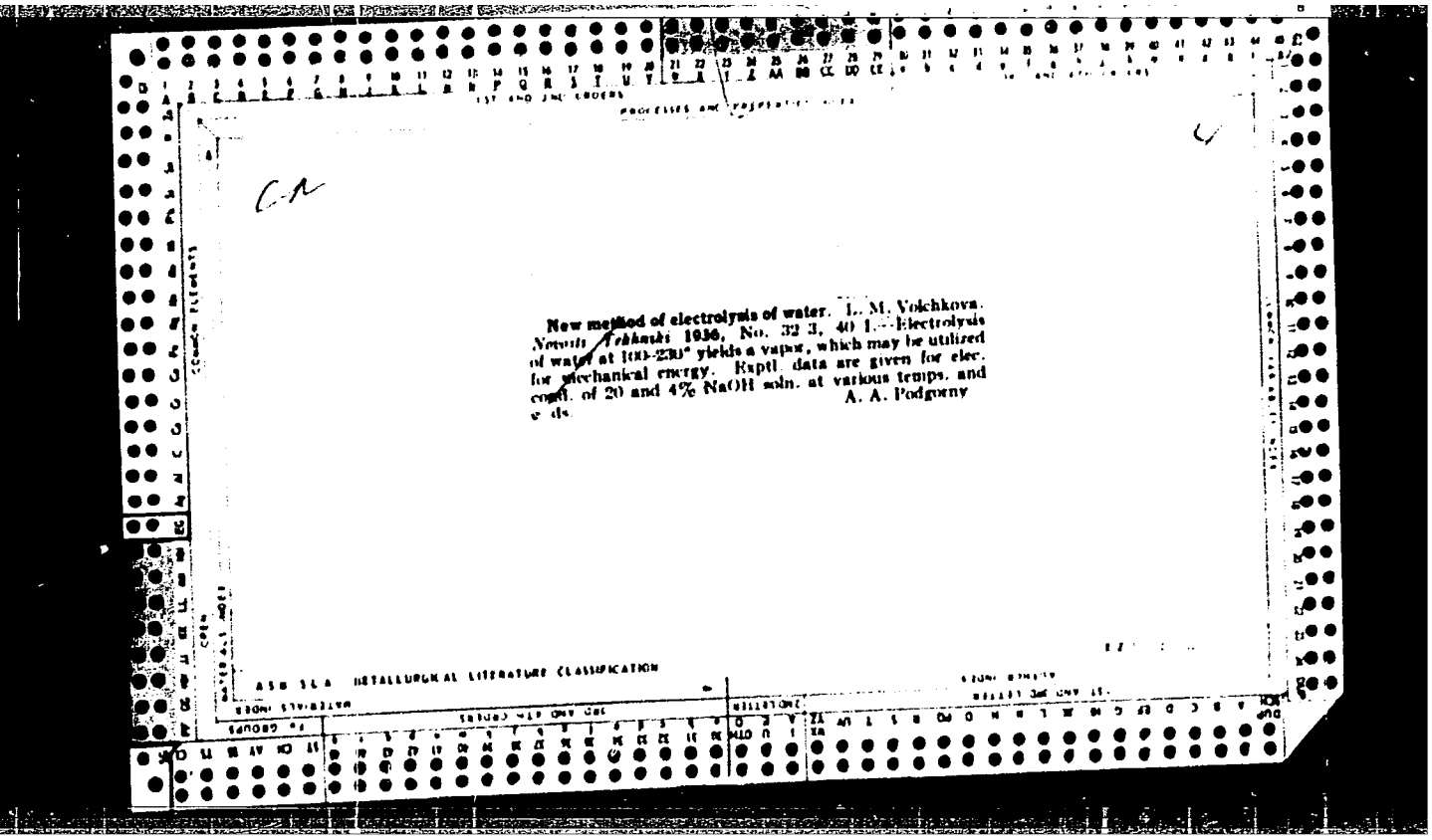
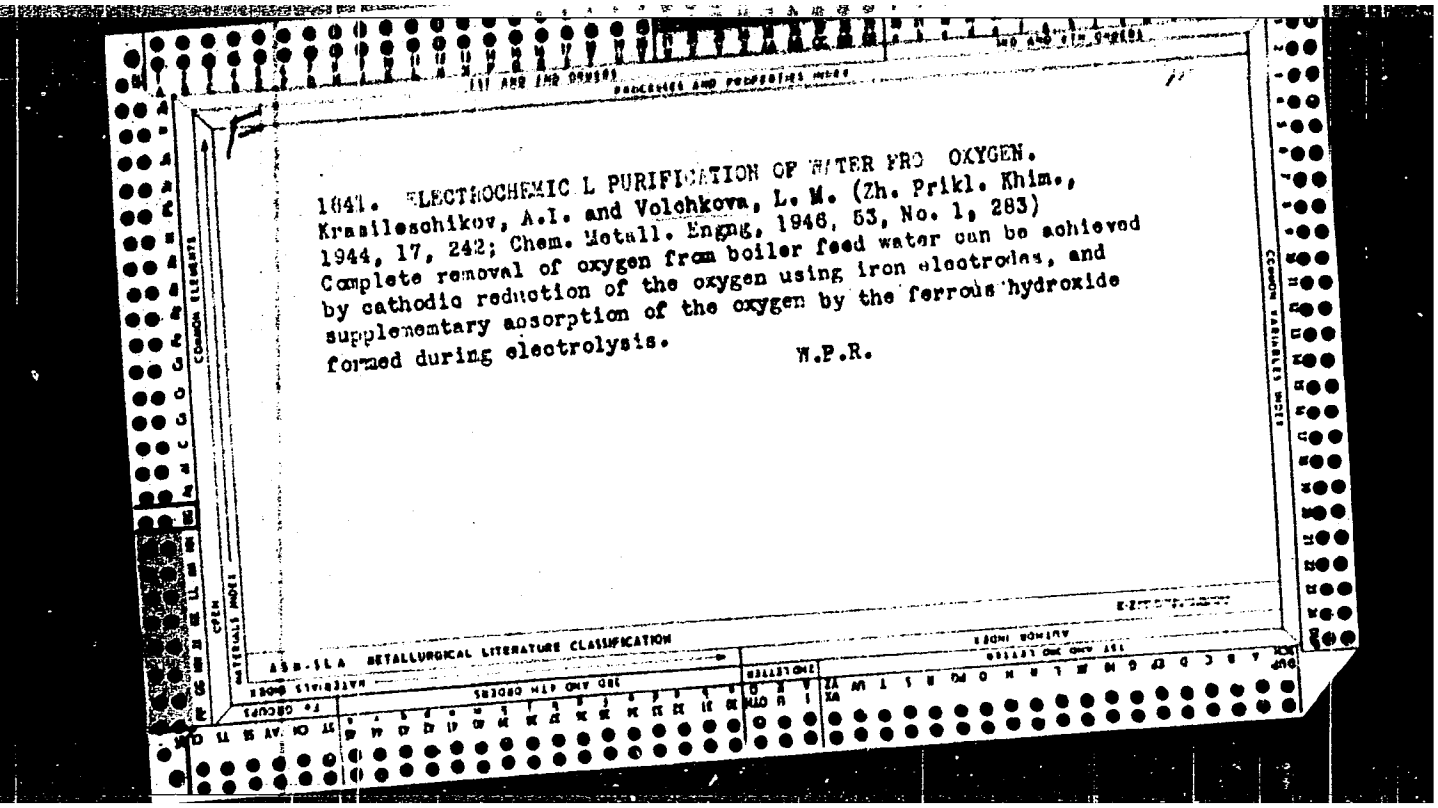


New method of electrolysis of water. L. M. Volchkova. *Novosti Tekhniki* 1936, No. 32 3, 40 l.—Electrolysis of water at 100-230° yields a vapor, which may be utilized for mechanical energy. Rptl. data are given for elec. condt. of 20 and 4% NaOH soln. at various temps. and c. ds. A. A. Podgorny

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7



1041. ELECTROCHEMIC L PURIFICATION OF WATER FRO OXYGEN.
Krasileschikov, A.I. and Volchkova, L. M. (Zh. Prikl. Khim.,
1944, 17, 242; Chem. Metall. Engng, 1946, 53, No. 1, 283)
Complete removal of oxygen from boiler feed water can be achieved
by cathodic reduction of the oxygen using iron electrodes, and
supplementary absorption of the oxygen by the ferrous hydroxide
formed during electrolysis.

W.P.R.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

VOLCHKOVA, L. M. Cand. Chem. Sci.

Dissertation: "Anodic Behavior of Nickel and its alloys in Alkaline Solutions." Sci Res Order of the Labor Red Banner Physicochemical Inst imeni L. Ya. Karpov, 1 Dec 47.

SO: Vechernyaya Moskva, Dec, 1947 (Project #17836)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420012-7

Met. Abstracts

9

Anodic Evolution of Oxygen on Nickel in Alkaline Solutions. L. M. Volchkova and A. I. Krasil'shchikov (*Zhur. Fiz. Khim.*, 1949, **23**, (4), 441–444).—[In Russian]. The electrode potential of a pure Ni anode in KOH soln. of concentrations from 0·01 to 5 N was measured at c.d. of 10^{-4}–10^{-2} amp./cm.^{2} and temp. of 20°–95° C., the electrolyte being saturated with air. Curves of electrode potential against c.d. showed two branches: that below 10^{-3} amp./cm.^{2}, corresponding to the formation of an oxide layer on the anode, and that from 10^{-3} to 10^{-2} amp./cm.^{2}, corresponding to the evolution of O_2 from the anode. For the latter branch the variation of potential ϕ with c.d. i and alkali concentration $[OH^-]$ at temp. T is given by: $\phi = A' + 0{\cdot}70\,(RT/F) \log_e i - 1{\cdot}74(RT/F) \log_e [OH^-]$, R being the gas const. This relation is satisfied by the following mechanism for the evolution of O_2: (I) $OH^- - \ominus \longrightarrow OH$, (II) $OH + OH^- \longrightarrow H_2O + O^-$, (III) $O^- - \ominus \longrightarrow O$, and (IV) $O + O \longrightarrow O_2$, in which stage (III) limits the velocity of the whole reaction. This assumed mechanism gives: $\phi = A' + 2/3(RT/F) \log_e i - 5/3(RT/F) \log_e [OH^-]$, which is in good agreement with experiment.—O. B. H.

State Inst. Nitrogen Industry, Moscow

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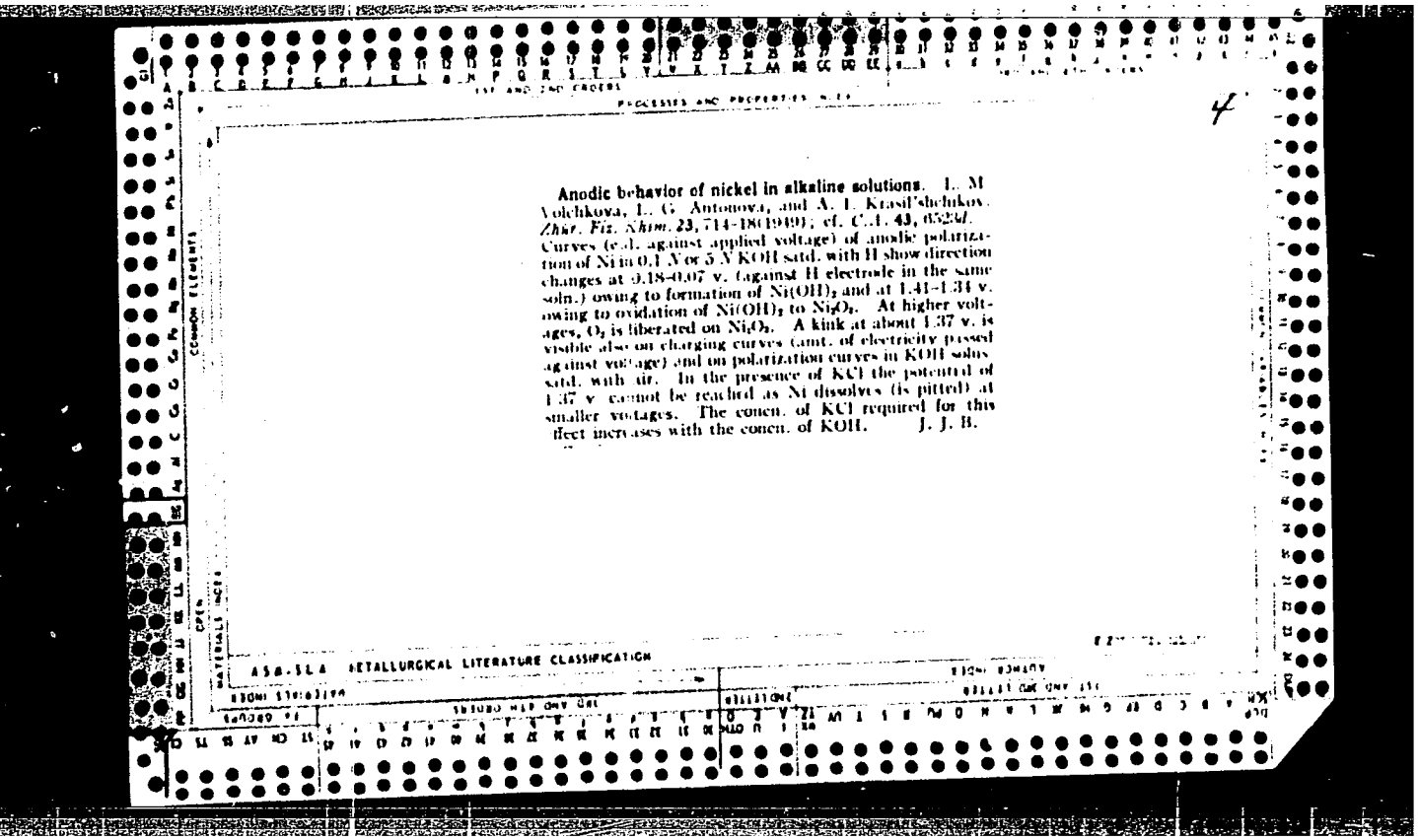

Anodic behavior of nickel in alkaline solutions. L. M. Volchkova, L. G. Antonova, and A. I. Krasil'shchikov. *Zhur. Fiz. Khim.* 23, 714-18(1949); cf. C.A. 43, 6526*d*. Curves (e.d. against applied voltage) of anodic polarization of Ni in 0.1 *N* or 5 *N* KOH satd. with H show direction changes at 0.18-0.07 v. (against H electrode in the same soln.) owing to formation of $Ni(OH)_2$ and at 1.41-1.34 v. owing to oxidation of $Ni(OH)_2$ to Ni_2O_3. At higher voltages, O_2 is liberated on Ni_2O_3. A kink at about 1.37 v. is visible also on charging curves (amt. of electricity passed against voltage) and on polarization curves in KOH solns satd. with air. In the presence of KCl the potential of 1.37 v. cannot be reached as Ni dissolves (is pitted) at smaller voltages. The concn. of KCl required for this effect increases with the concn. of KOH. J. J. B.

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VOLCHKOVA, L. M.

LC

19T24

USSR/Chemistry - Stainless Steels Dec 51
Electrolysis

"Passivity of Nickel Alloys With Iron and Chromium in Alkaline Solutions," L. M. Volchkova, L. G. Antonova, A. I. Krasil'shchikov, Moscow

"Zhur Fiz Khim" Vol XXV, No 12, pp 1445-1449

Investigated passivity of Fe-Cr-Ni alloy anodes in 0.1 and 5 N-KOH solns at 80°C. Found that Cr, basis of antioxidizing stainless steels, goes quantitatively into soln in concd alkali at 80°, rendering Fe-Cr-Ni austenite steel anodes unstable under these conditions. Under same conditions

19T24

LC

USSR/Chemistry - Stainless Steels Dec 51
(Contd)

Fe-Ni alloy anodes with 5% admixt of Ni are more stable, although not fully so at high cd in dil solns. Steels contg 25 and 46% Ni approach Ni in stability.

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VOLCHKOVA, L. M.

USSR/Chemistry - Oxygen, Hydrogen Peroxide

Apr 53

"Anodic Separation of Molecular Oxygen," A. I. Krasil'shchikov, L. M. Volchkova, L. G. Antonova

Zhur Fiz Khim, Vol 27, No 4, pp 512-516

Investigated the process of electrochem sepn of mol oxygen at a Ni surface in alk solns at the expense of the oxidation of perhydrexyl ions HO_2^-. Found that anodic separation of mol oxygen takes place at the surface of the oxide Ni $(OH)_2$ without participation of any higher oxides of NI because mol oxygen is inert towards the electrode surface.

270721

(CA 47 no.21:11049 '53)

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VOLCHKOVA, L.M., kand.khim.nauk; PLYASUNOV, V.D.; KRASIL'SHCHIKOV, A.I., doktor khim.nauk

Anodic polarization of nickel in alkaline solutions with the use of hydrogen under pressure. Trudy GIAP no.7:258-268 '57. (MIRA 12:9)

(Nickel) (Oxidation, Electrolytic) (Hydrogen)

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